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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,004	05/01/2001	R. Shawn Childress	14518	4809

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Richard L. Catania
Scully, Scott, Murphy & Presser
400 Garden City Plaza
Garden City, NY 11530

EXAMINER

ROBERTSON, JEFFREY

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 07/05/2002

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/847,004	CHILDRESS ET AL.	
	Examiner	Art Unit	
	Jeffrey B. Robertson	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 1, line 20, and page 8, line 22, applicant should update the status of the applications set forth in the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claim 2, in the formula for the secondary methallylamine, the carbon containing the methyl group has five bonds. For claim 3, it is not understood how U may represent a terminally unsaturated hydrocarbon radical since U, if present, is an alkylene group and would not have any terminal sites.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application

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published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Huang et al. (U.S. Patent No. 6,197,912).

The applied reference may have a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

For claims 1-4, in column 6, line 60 through column 7, line 16, Example 1, Huang teaches the reaction of a secondary methallylamine, N-ethylmethallylamine, with a hydridoalkoxysilane, trimethoxysilane, in the presence of a platinum hydrosilation catalyst. For claim 2, ethylmethallylamine falls within the formula set forth in claim 2 where R^1 =ethyl and $u=0$. Trimethoxysilane falls within the formula set forth in claim 2 for the hydridosilane where R^2 =methoxy and $a=0$. For claims 5 and 8, the platinum catalyst is added in an amount of 34 ppm, which is within the range of 5 to 500 parts per million set forth by applicant. Also for claims 5 and 7, the ratio of trimethoxysilane to ethyl methallylamine is 1.2, which falls within the range of 0.2-5 claimed by applicant. Here for claims 6-7, and 12, Huang discloses that the hydrosilation temperature is 90°C and 105°C, and performed at atmospheric pressure. For claim 9, Huang also teaches

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in this example that the methallylamine is added to a mixture of hydridosilane and catalyst at elevated temperature (68°C). For claims 10 and 11, Huang also discloses that methanol is added to the reaction, and purified through vacuum distillation.

Claim Rejections - 35 USC § 103

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-7, and 12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Shiozawa et al. (U.S. Patent No. 4,888,436).

For claim 1, in column 2, lines 23-45, Shiozawa teaches the reaction of a secondary methallylamine with a hydridoalkoxysilane, when in formula [I], R₂ equals methyl, and R₁ equals alkyl. Here Shiozawa teaches the presence of a rhodium hydrosilation catalyst. For claims 2 and 3, in the formula for the secondary methallylamine set forth by applicant, when u=0, general formulas [I] and [II] would

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anticipate applicant's formula. The formulas set forth by applicant and Huang for the hydridosilane overlap when applicant's R^3 and R^2 equal alkyl of 1-6 carbon atoms.

For claims 5 and 6, in column 3, lines 68, Shiozawa teaches that the amount of allylamine to hydrido alkoxysilane is 1.3:1 to 1:1.3, which overlaps applicant's range. In addition, Shiozawa teaches that the catalyst is present from 10^{-7} to 10^{-3} mol, which encompasses applicant's range. Here also, for claims 6, 7, and 12, Shiozawa teaches that the reaction takes place at a temperature of 50°C to 250°C , again encompassing applicant's range.

Shiozawa does not specifically disclose the use of secondary methallylamines in the patent, however, methallylamine is specifically disclosed in column 2, line 67. In formula [I], the presence of only one R_1 on the nitrogen atom, clearly indicates that Shiozawa contemplated the use of secondary amines, as evidenced by those disclosed in column 2, line 66. Therefore Shiozawa also clearly contemplated the use of secondary methallylamines as evidenced by the definition of the R groups in formula [I] as detailed above.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kabeta et al. (U.S. Patent No. 4,927,949) is being cited for generally teaching the reaction of hydridosilanes with allylamines.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (703) 306-5929. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Dawson can be reached on (703) 308-2340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

JBR

July 1, 2002



Robert Dawson
Supervisory Patent Examiner
Technology Center 1700